

AMENDMENT AND PRESENTATION OF CLAIMS

Please replace all prior claims in the present application with the following claims.

1. (Canceled)
2. (Currently Amended) The method of claim 50, further comprising:
specifying a feature-value set for a plurality of ~~network-terminal~~ devices, ~~said-the~~ feature-value set including a set of selected device features with one or more discrete feature values assigned to each ~~said-of the~~ selected device features, wherein each ~~said-of the~~ selected device features ~~is~~ selected from the features of the plurality of ~~network-terminal~~ devices in accordance with a pre-established criterion.
3. (Currently Amended) The method of claim 2, wherein ~~said-the~~ set of selected device features comprises ~~a member of the group consisting of~~ either display size, aspect ratio, display line count, color capability, graphics capability, variable size text capability, different font capability, input capability, ~~and~~ input bandwidth, or a combination thereof.
4. (Currently Amended) The method of claim 2, wherein ~~said-the~~ pre-established criterion includes a determination that a particular ~~said~~-selected device feature affects the manner in which the authored content is presented.
5. (Currently Amended) The method of claim 2, wherein ~~said-the~~ feature value set comprises discrete values assigned to selected features of a generic ~~network-terminal~~ device.

6. (Currently Amended) The method of claim 5₁ wherein ~~said-the~~ generic ~~network terminal~~-device comprises a set of device features selected from the display features of the plurality of ~~network-terminal~~-devices.

7. (Canceled)

8. (Currently Amended) The method of claim 50₁ wherein ~~said-step-of-the determination to convert~~ converting-the device-independent content comprises: ~~the step of-~~ identifying a metatag section of ~~said-the~~ markup information corresponding to the device feature values associated with the ~~network-terminal~~-device.

9. (Currently Amended) The method of claim 50₁ wherein ~~said-step-of-the determination to convert~~ converting-the device-independent content comprises: ~~the step of-~~ determining to remove ~~removing~~-~~said-the~~ markup information from ~~said-the~~ device-independent content.

10. (Currently Amended) The method of claim 50₁ further comprising: ~~automatically~~ analyzing ~~said-the~~ device-independent content; and ~~automatically~~ determining to embed ~~embedding~~-meta-data into ~~said-the~~ device-independent content, ~~said-the~~ meta-data comprising device feature values based, at least in part, on the device-independent content.

11. (Currently Amended) The method of claim 50₁ wherein ~~said-the~~ requesting ~~network terminal~~-device comprises at least one of a wireless telephone and a personal digital assistant.

12. (Currently Amended) The method of claim 50₁ further comprising:
identifying ~~said the~~ requesting ~~network terminal~~ device prior to ~~said step of~~ identifying one or more of the device feature values associated with the ~~network terminal~~ device.

13. (Currently Amended) The method of claim 12₁ wherein ~~said step of~~ identifying ~~said the~~ requesting ~~network terminal~~ device comprises reading ~~network terminal~~ device information contained in ~~said the~~ request.

14. (Currently Amended) The method of claim 50₁ wherein ~~said step of the determination to convert~~ converting the device-independent content comprises:

determining ~~the an~~ array of display pixels available in ~~said the~~ requesting ~~network terminal~~ device based, at least in part, on the device feature values associated with the ~~network terminal~~ device;

comparing ~~said the~~ array of display pixels with an array of image pixels corresponding to an image in the device-independent content;

selecting ~~said the~~ image for display in ~~said the~~ requesting ~~network terminal~~ device if ~~said the~~ array of image pixels does not exceed ~~said the~~ array of display pixels; and

determining to suppress ~~suppressing~~ said image from display if ~~said the~~ array of image pixels does exceed ~~said the~~ array of display pixels.

15. (Currently Amended) The method of claim 50₁ wherein ~~said step of the determination to convert~~ converting the device-independent content comprises:

determining an aspect ratio for ~~said the~~ requesting ~~network terminal~~ device from the device feature values associated with the ~~network terminal~~ device;

~~determining to send sending~~-content marked with an attribute of square to ~~said-the~~ requesting ~~network-terminal~~ device if ~~said-the~~ aspect ratio is square;

~~determining to send sending~~-content marked with an attribute of portrait to ~~said-the~~ requesting ~~network-terminal~~ device if ~~said-the~~ aspect ratio is portrait; and

~~determining to send sending~~-content marked with an attribute of landscape to ~~said-the~~ requesting ~~network-terminal~~ device if ~~said-the~~ aspect ratio is landscape.

16. (Currently Amended) The method of claim 50, wherein ~~said-step-of-the determination to convert converting~~-the device-independent content comprises:

determining that ~~said-the~~ device-independent content is marked as having a uni-axis free form characteristic;

identifying the number of segments supported by the display in ~~said-the~~ requesting ~~network-terminal~~ device;

concatenating a number of rows for sending to ~~said-the~~ requesting ~~network-terminal~~ device if ~~said-the~~ uni-axis free form characteristic includes a list characteristic, wherein ~~said-the~~ number of rows corresponds to ~~said-the~~ number of segments supported; and

concatenating a number of columns for sending to ~~said-the~~ requesting ~~network-terminal~~ device if ~~said-the~~ uni-axis free form characteristic includes a column characteristic, wherein ~~said-the~~ number of columns corresponds to ~~said-the~~ number of segments supported.

17. (Currently Amended) The method of claim 50, wherein ~~said-step-of-determination to convert converting~~-the device-independent content comprises:

determining that ~~said-the~~ device-independent content is marked as having bi-axially free form characteristic;

identifying the character count supported by a display in ~~said-the~~ requesting ~~network-terminal~~ device;

~~determining to send~~ ~~sending-to~~ ~~said-the~~ requesting ~~network-terminal~~ device a segment of content, wherein the character count in ~~said the~~ segment corresponds to ~~said-the~~ character count supported by ~~said-the~~ display.

18-19. (Canceled)

20. (Currently Amended) The system of claim 51, further comprising a device profile repository accessible by ~~said-the network-terminal~~ device detector, ~~said-the~~ device profile repository including a feature-value set for the requesting ~~network-terminal~~ device, ~~said-the~~ feature-value set including a set of selected ~~network-terminal~~ device features with one or more discrete device feature values assigned to each ~~said-of the~~ selected ~~network-terminal~~ device features.

21. (Currently Amended) The system of claim 51, further comprising a content repository accessible by ~~said-the~~ origin server, ~~said-the~~ content repository for storing annotated authored content whereby ~~said-the~~ origin server provides device-independent content from ~~said-the~~ annotated authored content.

22. (Currently Amended) The system of claim 51₁ wherein ~~said the~~ at least one ~~network terminal~~-device feature value is selected from the features of the requesting ~~network-terminal~~ device in accordance with a pre-established criterion.

23. (Currently Amended) The system of claim 51₁ wherein ~~said the~~ set of device feature values associated with the requesting ~~network-terminal~~-device comprises a member of the group consisting of display size, aspect ratio, display line count, color capability, graphics capability, variable size text capability, different font capability, and input capability.

24. (Currently Amended) The system of claim 51₁ wherein ~~said the~~ requesting ~~network terminal~~-device comprises at least one of a wireless telephone and a personal digital assistant.

25. (Canceled)

26. (Currently Amended) The ~~computer-readable media~~-non-transitory computer-readable storage medium of claim 52₁ wherein ~~said step of the step of determining to convert~~ converting comprises;

determining to convert ~~converting~~-the content by interpreting metatags embedded in the content.

27. (Currently Amended) The ~~computer-readable media~~-non-transitory computer-readable storage medium of claim 52₁ wherein ~~said step of the step of determining to convert~~ converting comprises;

~~determining to convert~~ ~~converting~~ the content into a landscape-formatted display format if the ~~terminal~~ device has a landscape-formatted display; and
~~determining to convert~~ ~~converting~~ the content into a portrait-formatted display format if the ~~terminal~~ device has a portrait-formatted display.

28. (Currently Amended) The ~~computer-readable media~~ ~~non-transitory computer-readable storage medium~~ of claim 52, wherein ~~said step of the step of determining to convert~~ ~~converting~~ comprises:

~~determining to convert~~ ~~converting~~ the content into a first aspect ratio if the ~~terminal~~ device has ~~said the~~ first aspect ratio; and
~~determining to convert~~ ~~converting~~ the content into a second aspect ratio if the ~~terminal~~ device has ~~said the~~ second aspect ratio.

29. (Currently Amended) The ~~computer-readable media~~ ~~non-transitory computer-readable storage medium~~ of claim 52, wherein ~~said step of the step of determining to convert~~ ~~converting~~ comprises:

~~determining to convert~~ ~~converting~~ the content into a small-sized image if the ~~terminal~~ device accommodates only small-sized images, and
~~determining to convert~~ ~~converting~~ the content into a large-sized image if the ~~terminal~~ device accommodates large-sized images.

30. (Currently Amended) The ~~computer-readable media~~ ~~non-transitory computer-readable storage medium~~ of claim 52, wherein the apparatus is caused to further perform: ~~further comprising~~

~~determining to annotate~~ ~~annotating~~ the content with meta-data to indicate the manner in which portions of the content should be represented on a plurality of different ~~terminal~~ devices having incompatible display characteristics.

31. (Currently Amended) The ~~computer-readable media~~ non-transitory computer-readable storage medium of claim 52, wherein ~~said step of determining to convert~~ ~~converting~~ comprises: determining to perform ~~performing~~—a best-fit match between ~~said—the~~ device display characteristics and one of a plurality of display formats.

32. (Canceled)

33. (Currently Amended) The method of claim 53, wherein identifying comprises: determining a device type of the requesting ~~data-processing~~ device, and looking up the one or more display feature values based at least in part, on the device type.

34. (Currently Amended) The method of claim 53, wherein one of ~~said—the~~ one or more display feature values corresponds to a display size of the requesting ~~data-processing~~ device.

35. (Currently Amended) The method of claim 53, wherein one of ~~said—the~~ one or more display feature values corresponds to an aspect ratio of the requesting ~~data-processing~~ device.

36. (Currently Amended) The method of claim 53, wherein one of ~~said—the~~ one or more display feature values corresponds to a display line count of the requesting ~~data-processing~~ device.

37. (Currently Amended) The method of claim 53, wherein one of ~~said-the~~ one or more display feature values corresponds to a color capability of the requesting ~~data-processing~~ device.

38. (Currently Amended) The method of claim 53, wherein one of ~~said-the~~ one or more display feature values corresponds to a variable size text capability of the requesting ~~data processing~~ device.

39. (Currently Amended) The method of claim 53, wherein one of ~~said-the~~ one or more display feature values corresponds to a multiple font capability of the requesting ~~data-processing~~ device.

40. (Currently Amended) The method of claim 53, wherein one of ~~said-the~~ one or more display feature values corresponds to an input capability of the requesting ~~data-processing~~ device.

41. (Currently Amended) The method of claim 53, wherein one of ~~said-the~~ one or more display feature values corresponds to an input bandwidth of the requesting ~~data-processing~~ device.

42. (Canceled)

43. (Currently Amended) The method of claim 53, wherein ~~said-step-of-the determination to convert~~ converting step comprises:
determining to remove ~~removing~~ the annotations from the device-independent content.

44. (Currently Amended) The method of claim 53, wherein ~~said-the~~ requesting ~~data processing~~-device comprises a wireless telephone.

45. (Currently Amended) The method of claim 53, wherein the determination to convert ~~converting~~-comprises:

determining an array of display pixels available in ~~said-the~~ requesting ~~data processing~~-device based, at least in part, on the one or more display feature values;
comparing ~~said-the~~ array of display pixels with an array of image pixels corresponding to a content image;
selecting ~~said-the~~ content image for display in ~~said-the~~ requesting ~~data processing~~-device if ~~said-the~~ array of image pixels does not exceed ~~said-the~~ array of display pixels; and
determining to suppress ~~suppressing~~-said content image from display if ~~said-the~~ array of image pixels does exceed ~~said-the~~ array of display pixels.

46. (Currently Amended) The method of claim 53, wherein the determination to convert ~~converting~~-comprises:

determining an aspect ratio for ~~said-the~~ requesting ~~data processing~~-device based, at least in part, on the one or more display feature values; and
determining to send ~~sending~~-device-specific content in the determined aspect ratio to ~~said-the~~ ~~data processing terminal~~-device.

47. (Currently Amended) The method of claim 46, wherein ~~said-the~~ aspect ratio comprises a square aspect ratio.

48. (Currently Amended) The method of claim 46, wherein ~~said-the~~ aspect ratio comprises a portrait aspect ratio.

49. (Currently Amended) The method of claim 46, wherein ~~said-the~~ aspect ratio comprises a landscape aspect ratio.

50. (Currently Amended) A method comprising:

receiving device-independent content comprising markup information identifying one or more device feature values associated with the device-independent content, wherein the device-independent content is responsive to a content request from a ~~network-terminal~~ device;

identifying one or more device feature values associated with the ~~network-terminal~~ device;

matching at least one of the device feature values associated with the device-independent content with at least one of the device features values associated with the ~~network-terminal~~ device;

based, at least in part, on ~~said-the~~ matching, ~~determining to convert~~ converting the device-independent content into device-specific content adapted to ~~said-the network-terminal~~ device; and

determining to provide ~~providing~~ the device-specific content to the ~~network-terminal~~ device.

51. (Currently Amended) A system, comprising:

a ~~network-terminal~~ device detector configured to receive a content request from a ~~network-terminal~~ device and to determine therefrom one or more device feature values associated with the requesting ~~network-terminal~~ device;

an origin server configured to receive ~~said-the~~ content request and, in response thereto, to provide device-independent content corresponding to ~~said-the~~ content request, wherein ~~said-the~~ device-independent content comprises markup information identifying one or more device feature values associated with the device-independent content;

a transformer configured to receive ~~said-the~~ device-independent content from ~~said-the~~ origin server, to associate at least one of the device feature values associated with the device-independent content with at least one of the device features values associated with the ~~network-terminal~~ device, and to transform ~~said-the~~ device-independent content into device-specific content formatted for the requesting ~~network-terminal~~ device.

52. (Currently Amended) ~~One or more computer-readable media storing computer-executable instructions that, when executed, perform a method comprising:~~ A non-transitory computer-readable storage medium carrying one or more sequences of one or more instructions which, when executed by one or more processors, cause an apparatus to at least perform the following steps:

receiving a request for content from a ~~terminal~~ device;

based, at least in part, on ~~said-the~~ request, identifying one or more device display characteristics associated with the ~~terminal~~ device;

receiving content responsive to the request, wherein ~~said-the~~ content comprises markup information identifying one or more content display characteristics, ~~said-the~~ content display characteristics expressing an author intent for displaying ~~said-the~~ content on a plurality of devices having different display characteristics;

matching one or more device display characteristics with one or more content display characteristics;

~~based, at least in part, on said-the matching, determining to convert converting-the content~~
into a device-dependent format compatible with one or more device display
characteristics of the ~~terminal~~-device; and
~~determining to transmit transmitting-said-the~~ device-dependent formatted content to the
~~terminal~~-device.

53. (Currently Amended) A method comprising:

receiving a request for content from a ~~data-processing~~-device;

identifying one or more display feature values associated with the requesting ~~data-processing~~
device;

receiving device-independent content responsive to the request for content, the device-
independent content comprising embedded annotations specifying author intent for
displaying the content on a plurality of devices having different display characteristics,
~~said-the~~ embedded annotations including one or more content display feature values;

matching one or more display feature values associated with the requesting ~~data-processing~~
device with one or more content display feature values in the embedded annotations in
the device-independent content; and

~~determining to convert converting-the~~ device-independent content into device-specific
content based, at least in part, on ~~said-the~~ matching, ~~said-the~~ device-specific content
compatible with one or more display feature values associated with the requesting ~~data~~
~~processing~~-device.

54. (Previously Presented) The method of claim 50, wherein the markup information comprises a first metatag identifying a first value for a first device feature and a second metatag identifying a second different value for the first device feature.

55. (Previously Presented) The method of claim 54, wherein the first metatag is associated with a first portion of requested content and the second metatag is associated with a related second portion of requested content, and wherein only one of the first portion and the second portion is included in the device-specific content.

56. (Currently Amended) An apparatus comprising:

~~a processor configured to control some operations of the apparatus in conformance with computer executable instructions stored in memory, said instructions comprising:~~

at least one processor; and

at least one memory including computer program code for one or more programs,

the at least one memory and the computer program code configured to, with the at least one processor, cause the apparatus to perform at least the following,

~~receiving—receive~~ device-independent content comprising markup information identifying one or more device feature values associated with the device-independent content, wherein the device-independent content is responsive to a content request from a ~~network terminal~~-device;

~~identifying—identify~~ one or more device feature values associated with the ~~network terminal~~-device;

~~matching-match~~ at least one of the device feature values associated with the device-independent content with at least one of the device features values associated with the ~~network-terminal~~ device;

based, at least in part, on ~~said-the~~ matching, ~~determine to convert~~ converting the device-independent content into device-specific content adapted to ~~said-the~~ network-terminal device; and

determine to provide ~~providing~~ the device-specific content to the ~~network-terminal~~ device.

57. (Currently Amended) The apparatus of claim 56, wherein a plurality of ~~said-the~~ device feature values associated with the ~~network-terminal~~ device each corresponds to ~~a member of the group consisting of~~ either display size, aspect ratio, display line count, color capability, graphics capability, variable size text capability, different font capability, ~~and~~ input capability, or a combination thereof.

58-60. (Canceled)

61. (Currently Amended) The method of claim 50, wherein the one or more device feature values correspond to physical characteristics of the ~~network-terminal~~ device.

62. (Currently Amended) The method of claim 50, wherein ~~said-the~~ matching comprises accessing a device profile repository including feature-value data for a plurality of different types of ~~network-terminal~~ devices.

63. (Currently Amended) The method of claim 56, wherein ~~said~~the matching comprises accessing a device profile repository including feature-value data for a plurality of different types of ~~network-terminal~~ devices.

64. (New) The method of claim 50, wherein the device is a network terminal device.